Core Curriculum Steering Committee Meeting
January 3, 2007 10:00 a.m

Attendance at this meeting: Russell Thompson, Chair conducting; Damon Bahr, Jim Cangelosi, Richard Cutler, Lisa Jasunback, Barbara Kuehl, Marty Larkin, Nicole Paulson, Gina Post, Blake Peterson, Hugo Rossi, Larry Stott, Diana Suddreth, Ron Twitchell, and Jeff Humphreys as a substitute for David Wright. Not in attendance were: Lorel Preston, David Wright.

Introductions. Russell Thompson welcomed attendees and had those present introduce themselves (at this time, the committee consists of the following: Russell Thompson, *Chair*, Department of Mathematics and Statistics, USU; Damon Bahr, Department of Teacher Education, BYU; Jim Cangelosi, Department of Mathematics and Statistics, USU; Richard Cutler, Department of Mathematics and Statistics, USU; Lisa Jasenback, Davis School District; Barbara Kuehl, Jordan School District; Marti Larkin, Department of Mathematics, SUU; Nicole Paulson, USOE; Gina Post, Department of Teaching and Learning, University of Utah; Lorel Preston, Department of Education, Westminster College; Blake Peterson, Department of Mathematics Education, BYU; Hugo Rossi, Department of Mathematics, University of Utah; Larry Stott, Salt Lake City School District; Diana Suddreth, USOE; Ron Twitchell, Provo School District; David Wright, Department of Mathematics, BYU.)

I. Committee Charge. Dr. Thompson presented a short PowerPoint presentation on the committee charge. The presentation was based on a resolution of the State Legislature. A handout was given to all: Resolution of the Public Education Interim Committee/Utah State Legislature Nov. 2006

In response to a question, Brett Moulding explained the jurisdiction of this committee, who we report to, a bit of history, and addressed the letter from Patty Harrington dated November 3, 2006 to the Utah State Board of Education.

II. The committee discussed rules for meeting procedures. Voting guidelines were discussed. It was agreed upon that a quorum on this committee would be 8 voting members, chairman excluded. It was suggested that Robert's Rules of Order would be used in the decision making process and that any member could request that these rules be applied during the discussion process

Russell Thompson suggested that some of the meetings might be conducted electronically through video communications. Jim Cangelosi talked about distance education broadcasting sites being used to alleviate the need for committee members to commute to a portion of the committee meetings.

There was some discussion of procedures in the event that a committee member was unable to attend a meeting.

Blake Peterson brought up the suggestion of recording the meetings so that persons not in attendance would be able to view the meeting.

Hugo Rossi made a motion that committee members who are not able to attend a meeting would be given the right to give "proxy" status to another committee member, thereby, allowing the "proxy" to vote for them in their absence from the meeting. Persons sent to the meeting as a substitute for a committee member would not be allowed to vote.
The motion was seconded
Voting was: 12 votes for the motion, 1 abstention.
Motion carried.

Jim Cangelosi brought up the need to have an appropriate way reporting disagreements with the committee views and votes. Jim Cangelosi suggested that persons not agreeing with a majority vote would have the right to make a minority report. The objective is to have a transparent process

Barbara Kuehl spoke about using the the Supreme Court as a model, where the majority vote can be accompanied with a report from the minority.

Damon Bahr suggested that minority reports be included with the minutes of the prior meetings and approved at the next committee meetings.

Richard Cutler suggested that these items be brought forward as "additional material".

Hugo Rossi suggested that dissenting views be brought up and addressed at the meetings. These could also be included in the final letter to the School Board.

Richard Cutler said that there could be "augmented minutes" and Cutler that a transmittal letter, along with the core revision document be given to the school board. This letter would describe the process whereby minority opinions are being addressed in this document.

The need to create an alias for committee members to use for email communication was raised.

We also need to get the minutes of this meeting should be posted on the USOE web site. Members in attendance agreed to the posting their business address and email info on this website.

Concerning the minutes of the meetings:

A motion was made by Blake Peterson that minutes not be posted on the website for the public until the committee had approved the minutes.
Lisa Jasenback seconded the motion.
Vote unanimous in favor of this motion.
Motion carried

A motion was made by Richard Cutler that all opinions (including decenting opinions) be formally recognized through the minutes, and through additional documentation.
Damon Bahr seconded the motion.
Voting unanimous in favor of this motion
Motion carried

Hugo Rossi wondered if new material that had not been presented to the committee could be put into the minutes. (Note: Open meeting laws require that minutes contain "any other information that any member requests be entered in the minutes.")

A motion was made by Lisa Jasenback that if there is a dissenting opinion, the mechanism would be to submit a minority report with the final transmittal letter.
Blake Peterson seconded the motion.
Voting 13 in favor of this motion, no abstentions
Motion carried

Morning break at 11:10 for 10 minutes

III. The Core Curriculum Process. Brett Moulding, Director of Curriculum Instruction for the State Office of Education addressed the committee, presenting a history of this project. He showed a PowerPoint presentation and passed out a handout titled "Process of Core Revision and Elements of a Core Curriculum -- Math Core Revision".

Brett stated that the proceedures taken and the work of this committee need to be transparent to the public. The committee will have to answer all questions or comments brought up by the public.

Brett reported to the committee that the new core revision is expected to be in place in the schools this September, 2007 with assessment on the changes beginning in May, 2008.

Brett outlined some of the procedures and directions that needed to be followed. They are as follows:

- There should be a "Core Writing Committee". The steering committee can do this function if it is decided to conduct it that way, sending it out to teachers to review after rewriting the core curriculum. The committee can engage as many teachers as wanted.

- There must be a review for assessment; can give this to assessment experts to determine that all core items can be assessed.

- This document then needs to go out to teacher hearings and then to public hearings.

- The document should be shared with the state math education coordination committee to gain their endorsement (this would allow district specialists to give feedback to the committee, and would encourage the Math Education Coordination Committee to "buy into" the revision and help initiate programs and meetings to meet with their teachers thereby helping to implement the new document). Then this document goes to the state school board for approval and then implementation.

It was decided that Diana Suddreth's office would be the place collecting public comments that would need to be answered by the committee.

Brett said that the Intended Learning Outcomes set the stage for the learning outcomes for the students. He stated that we want powerful main goals and then subgoals.

He encourages the committee to write an elementary and a secondary introduction to the document, and to also include grade level specific introductions.

He handed out a verb list which can be used as a resource when trying to decide on correct terminology during this process.

The Core document consists of standards, objectives, and indicators

- A Standard is broad and has 2-3 objectives.

- Objectives (this is where the assessment occurs) tell what is to be learned. Students are tested to the objectives and indicators.

- Objectives have 3-5 Indicators. The objective should be broader than the indicators. (Objectives should be a key element of the core curriculum revision.) Indicators tell us that a student has demonstrated the knowledge needed to satisfy the objective.

- The revision must articulate how Objectives progress and build from the beginning to the end of the individual student's education.

Brett stated that anything outside of the objectives and indicators is open to public critisism.

Brett stated that this steering committee is to oversee the production of a revision of the math core curriculum and must also provide a report of the process of this project.

Brett asserted that the charge to the committee comes from the State Board of Education: to review and revise the Math Core Curriculum using the existing structure (as described in the presentation).

The target audience for this document is the teachers of the State of Utah.

Lunch break at 12:30 pm

Afternoon session: 1:15 pm

IV. Open Dialog Time: The committee chair, Russell Thompson opened the discussion at this time to all present for open dialog. Committee members were invited to make statements concerning the revision and how to proceed.

It was proposed that a survey be sent to the teachers in Utah by grade bands, requesting input on the existing core curriculum guidelines and how they are being used. A deadline of end of January or beginning of February was to be set of the comments to received. After that time, the committee would review the results.

Barbara Kuehl suggested using a class she is teaching for teacher's in her district to look at a survey of questions concerning the present core curriculum. It was suggested to give them this survey to get comments on the current curriculum to the committee. The survey would also be sent out to other groups of teachers in the state requesting their opinions.

There was a discussion about documents that would be useful for the committee members to review.

It was suggested to look at the recommendations from the previous committee and to look at David Wright's recommendations prior to the next committee meeting. Then be prepared to work on the actual revisions. Hugo Rossi talked about David Wright wanting more change to the actual language of the document, stating that David wants the revised core curriculum to be more "crisp".

It was also suggested that the committee take a look at math standards from some other countries. James Milgram's PowerPoint presentation will also be helpful.

The recommendation was made that the following documents be reviewed by all committee members prior to the next meeting:

- Barbara Reys' PowerPoint presentation. (Nicole Paulson to provide)
- The previous committee's report and recommendations (Blake Peterson to provide)
- The West Ed report (Nicole Paulson to provide)
- The Fordham report (available on line)
- David Wright's suggested revision at eight grade level
- The current state math core curriculum document. (available on CD and online)
- The Focal points (NCTM) (available on line)

Nicole Paulson agreed to contact the author (Barbara Reys, Univ. of Missouri) to see if we can get an updated copy of their analysis of state standards for the committee to use. An executive summary is currently available, Nicole will supply the link. Elementary Education web page at the state office of education

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Time line working backwards:

There was a discussion of the deadlines that need to be met in order to have the revision ready for implementation fall 2007.

Submit Draft for approval at June 7 State Board Meeting
May 15-18 Steering Committee review and finalize draft for Board approval
April 6—May 4 Public Hearings
March 12-16 committee finalizes draft for public hearings
Feb 5-March 9 Focus groups held/advisory group meets
Jan 28-Feb 4 committee meets ok's draft for focus groups
Jan 25 SMECC mtg – district feedback
Jan 23 first draft complete
Jan 19 committee assignments, leads chosen

It was generally agreed upon that if there are to be extensive changes to the existing core curriculum, the time period designated to this committee for completion of this project is not sufficient. Concern was also expressed that the timeline was too short to do an adequate job. Specifically, this timeline prevents teachers from being appropriately involved in the process.

Steps for proceeding:

All documents listed above will be sent via email either as PDF files, or URLs, or will otherwise be accessible to the committee members to review prior to the next meeting. Jim Cangelosi recommended that everyone look in detail at the core curriculum and a copy of what David Wright has done. Then the committee needs to meet fairly soon to be able to begin the rewriting process.

Tasks to be completed prior to the next meeting:

1. At next meeting have all documents reviewed and have revisions in mind.

2. Put together a questionnaire to send out to Utah teachers (the teachers in Barb's class in particular). Damon Bahr volunteered to write a survey to be sent out.

Next meeting needs to be face to face. After some discussion it was agreed that it would be held on Friday, January 19th, at 2:00 p.m. -7:00 p.m. Lisa Jansenback is making the arrangements for this room at this location. She will also make food arrangements for this meeting.

Suggestions for the next meeting:

- Discuss reports that were assigned to be reviewed
- Develop the agenda for the committee and timelines for meetings and due dates for when the report will be completed.
- Pick your favorite grade and rewrite the core for that grade for the meeting.

Russell distributed 3 handouts to review for future work – the Intended Learning Outcomes that are currently included with the curriculum for science, elementary math, secondary math.

Meeting adjourned at 3:20 pm

Addenda

1. Resolution of the Public Education Interim Committee, Utah State Legislature, November 2006
2. PowerPoint Presentation: Process of Core Revision and Elements of a Core Curriculum.

Resolution of the Public Education Interim Committee

Utah State Legislature

November 2006

Whereas, knowledge, skills and abilities in math, science and technology are of great importance to the economic vitality and future in Utah and the United States, and

Whereas, Utah's math scores on national and international benchmarks show success in some concepts but weakness in others, and

Whereas, while Utah's highest achievers in math take more advanced math than peers nationwide, there is yet an achievement gap in math for other Utah children and it is wide and pernicious, and

Whereas, the single most important factor in student achievement that is controlled by public education is the quality of the teacher and his/her content knowledge and ability to help each child understand math, and

Whereas, there is national debate about the appropriate method by which math should be taught, and

Whereas, Utah intends to clearly declare its expectations from out of that debate and ensure that as students graduate from high school, they are able in math and can provide the backbone for a steady stream of engineers, scientists, computer scientists, and mathematicians for the future of Utah in industry, education, and business, including the Utah Science, Technology, and Research (USTAR) initiative, and further,

Whereas, students in Utah must be able to compete against both national and international peers, it is therefore

Resolved, that the Utah Legislature's Public Education Interim Committee (Committee) endorses the plan for a full review of math standards by the Utah State Board of Education (USBE) to result in world-class math standards, and further,

Resolved, that the standards identified are benchmarked against the highest performing states and countries, and further,

Resolved, that the process for review should be under the direction of the USBE and include a wide spectrum of math content experts as well as math education experts who utilize current research in their review, i.e., Focal Points (National Council of Teachers of Mathematics), National Math Panel recommendations (expected January/February 2007) and the math standards of the highest performing states and countries, and further,

Resolved, that the review include the identification of key standards, including a clear standard for quick recall of basic facts in early elementary grades, and further,

Resolved, that the review include key standards for the fluency and understanding of standard algorithms of whole number arithmetic in elementary grades, and further,

Resolved, that the review include an agreement of the appropriate use of calculators, and further,

Resolved, that the Committee further endorses the USBE expectation of greater math content expertise by teachers in grades 4-6, where math foundations must be firmly rooted, and will work closely with the USBE to ensure financial incentives for such endorsements, and further,

Resolved, that the Legislature will work closely with the USBE to provide for interventions for students who struggle and for acceleration options for students who can accelerate their learning and that this process will lean heavily upon excellent math software and computer-aided instruction, and further,

Resolved, that the Committee supports the USBE in their work to strengthen accountability as it relates to ensuring the core is taught in every classroom in the state.

Process of Core Revision
and
Elements of a Core Curriculum

Brett D. Moulding
January 3, 2007

Math Core Revision

Process of Core Revision

Development of the Core

Open and Transparent Process

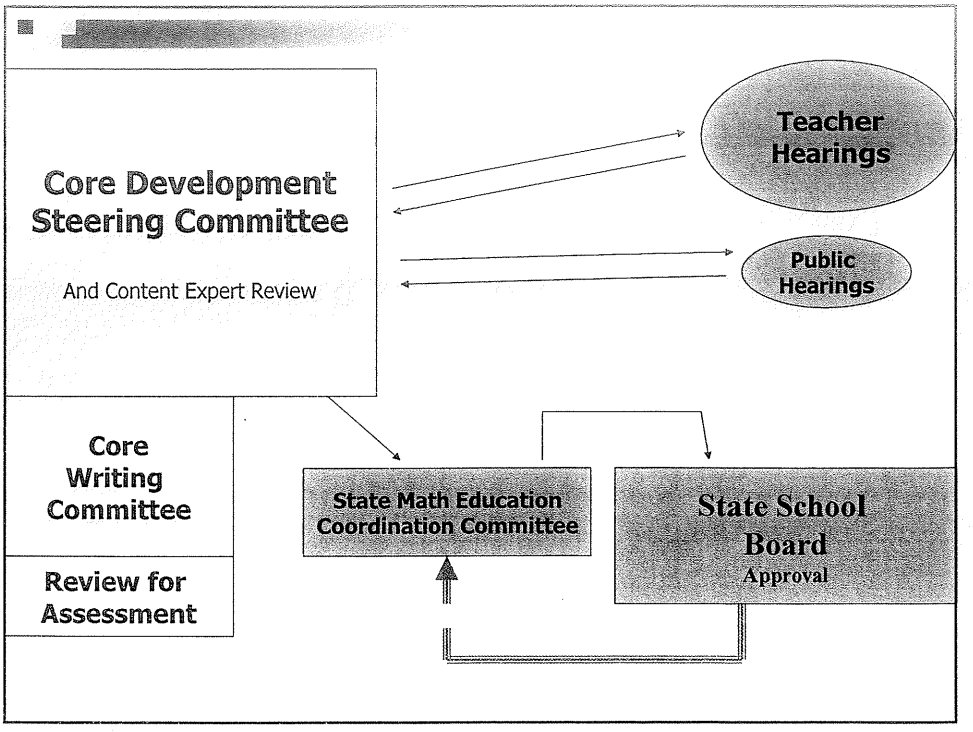
Core Development Involves Stakeholders

Teachers, Administrators, Parent Groups, Districts, State Office of Education, Universities, Professional Organizations, Informal Education Organizations, Experts in the Field

The Core is Approved by the State School Board

When Approved the Core is Implemented Statewide

Instructional Materials Must Align to Core
Math Endorsements Reflect the Core Content
Assessments are Aligned Exactly to the Core
Professional Development Targets Teaching the Core



Elements of the Core

Grade Level Specific Standards

- **The Core identifies content knowledge, skills, and dispositions for all students (specific to math)**
- **The Core is a set of minimum standards for each grade level**
- **The Core consists of a(n):**
  - Introduction to the Math Core
  - Grade-Level Specific Introductions
  - Intended Learning Outcomes
  - Content Descriptors (Boundaries, Benchmarks)
  - Standards, Objectives, and Indicators
  - Appropriate Language of the Field
- **Objectives are written in measurable language**
- **The Core describes the learning outcomes of instruction**

Introductions

- **Introduction to Math Core**
  - Elaborate on the purpose for Math
  - Philosophy of Math – the most important goal
  - Describe the goals of instruction
  - Describe the Core intent and components
- **Grade-Level Specific Introductions**
  - Describe the specific details of the grade-level
  - Provide themes
  - Provide specifics of instruction unique to topics in the grade-level
  - Describe developmental appropriateness
  - Describe specifics of assessing the grade level

Intended Learning Outcomes

- What is the intent of instruction of Math
- Break this down into sub-goals
- Provide indicators of these goals

Content of Core

- **Content Descriptors (Boundaries, Benchmarks)**
  - Provide specific content statements of the essential content for all students in mathematics "proficient at multiplication, ……)
- **Standards, Objectives, and Indicators**
  - Standards include statement of what students "understand"
  - Objectives require language that can be assessed
    - Objectives use verbs that increase in cognitive demand as you ascend grade-levels
    - Objectives are measurable

Content of Core Continued

- **Standards, Objectives and Indicators**
  - Indicators provide specific performances that indicate the student has met the objective
  - Verbs are assessable
  - Articulate up Bloom's Taxonomy and move from assessable using selected response to essay to project to observation/interview
    - a) Identify….
    - b) Describe….
    - c) Compare
    - d) Analyze…
    - d) Report on …..
    - e) Apply…

Content of Core Continued

- **Standards, Objectives and Indicators**
  - Numbering system
  - Standard I
  - Objective 1
  - Indicator a.

Appropriate Language of the Field

- Language students should know and use
- Not a vocabulary list
- Developmentally appropriate
- In the Core Standards, Objectives, or Indicators.

Things to Consider and Align

- **Instructional Materials aligned to the Core**
  - The essential criteria for adoption of instructional materials: Alignment to Core
  - The Core should be developed with this in mind
- **The Life Skills should be an essential element of the Core**
- **Technology and Library Media should be integrated in the Core**
- **Articulation and Spiral**
- **Developmental Appropriateness**